

FIG. 1

MCLK1	MRHSKRTYC-----PDWDERDWDYGTWRSSSSHKRKKRSHSSAREOKR	43
MCLK2	P.PR.YHSSERGRSGSYHEHYQSRKHKRRR.R.WSSSSDRTRRR.REDS	50
MCLK3	H.C..YRSPEPDPLYTRWK.RRS.SREHEGRLRYPSSR.EPPPR.S---	47
MCLK4	.....H.-----....S.ESWGHESY.G-.....R.....TO.NRH	42
MCLK1	CRYDHSKTTDSYYLESRSINEKAYHSRRYVDEY--RNDYMGYEPGHPYGE	91
MCLK2	YHVRSSSY.DHSSDR.LY-----D.RYCGSYR...SRDRGEAY.DT	93
MCLK3	SRE.APYRTRKHAHHCHK.RTRSCSSASSRSQSSKRSSR-----	94
MCLK4	.KPH.QFKDSDCHYLEARCLNERDYRD.RYIDEY-....CEGYVPRH.HR	91
MCLK1	PGSRYQMHS-SKSSGRSGRSSYKSKHRSRHHTSQHHSOGHSHRRKRSRV	140
MCLK2	DFROSYEYHREN..Y..Q...RRKHR.R.RRSRTFSRSSSSHSS.RAK-..	142
MCLK3	SRE.APYRTRKHAHHCHK.RTRSCSSASSRSQSSKRSSR-----	136
MCLK4	DVESTYRIHC....V..R...P.R.RNRPCASH.S.--.....I	139
MCLK1	EDDEEGHLCOSGDVLSARYEIVDTLGEGAFGKVVECIDHKVGGRRVAVK	190
MCLK2	...A.....YHV..W.OE.....S.....TS.R..Q...RR..T...L.	192
MCLK3	...K....V.RI.SW.OE.....GN...T.....L..ARGKSO..L.	186
MCLK4	.....R.....GMD.LH....	189
MCLK1	IVKNVDRYCEAAQSEIQVLEHLNTTDPHSTFRVCQMLEWFEHRGHICIVF	240
MCLK2	.I...EK.K...RL..N...KI.EK..KNKNL....FD..DYH..M..S.	242
MCLK3	.IR..GH.R...RL..N..KKIKEK.KENK.L..L.SD.NFH..M..A.	236
MCLK4	.....GG.R...R.....S...N.V.....D.H..V....	239
MCLK1	ELLGLSTYDFIKENSFLPFRMDHIRKMAYQICKSVNFLHSNKLTHDLP	290
MCLK2	.....F..L.D.NY..YPIHQV.H..F.L.OA.K...D.....	292
MCLK3	....KN.FE.L...N.Q.YPLP.V.H....L.HALR...E.Q.....	286
MCLK4	.....QI....Q.....Q.I....H.....	289
MCLK1	ENILFVKSDYTEANPKMKRDERTIVNPDIKVVDFGSATYDDEHSTLVS	340
MCLK2	.....N...ELT..LEK....SVKSTAVR.....F.H.....I..	342
MCLK3	.....N..EFETL..EHKSCE.KSVK.TSIR.A.....F.H...T.I.A	336
MCLK4	.....VVK..S.....LK.T.....	339
MCLK1	TRHYRAPEVILALGWSQPCDWSIGCILIEYYLGFTVFPTHDSREHLAMM	390
MCLK2	.....E.....IF...V...L.Q...N.....	392
MCLK3	.....P.....E...A.....F...R...L.Q...K.....	386
MCLK4	.....Q.....K.....	389
MCLK1	ERILGPLPKHMIQKTRKRRYFHHDRLDWDEHSSAGRYVSRCKPLKEFML	440
MCLK2	.....V.SR..R...OK..YRG.....NT.....REN....RRYLT	442
MCLK3	.K....I.S...HR...OK..YKGG.V...N..D...KEN....SY..	436
MCLK4	.....I.A.....K...NQ.....R.....	439
MCLK1	SODAEHEFLFDLVGKILEYDPAKRITLKEALKHPFFYPLKKHT	483
MCLK2	.EAED.HO....IENM...E....L..G...Q....AC.RTEPPNTKLWD	492
MCLK4	QDSL..VQ....MRRM..F...Q....A...L....AG.TPEERSFHSSSR	486
MCLK5	CHDE...K.....RRM.....R....D...Q....DL..RK	489
MCLK1	SSRDISR	499
MCLK2	NPSR	496
MCLK3		
MCLK4		

FIG. 2

MPHPRRYHSSERGSRGSYHEHYQSRKHKRRRSRSWSSSSDRTRRRRRREDSYHV
RSRSSYDDHSSDRRLYDRRYCGSYRRNDYSRDRGEAYYDTDFRQSYEYHRENS
SYRSQRSSRRKHRRRRRRSRTFSRSSSHSSRRAKSVEDDAEGHLIYHVGDLQE
RYEIVSTLGEGTSGRVVQCVDHRRGGTRVALKIKNVEKYKEARLEINVLEKI
NEKDPDNKNLCVQMFDFDYHGHMCISFELLGLSTFDLKDNNYPYPIHQ
VRHMAFQLCQAVKFLHDNKLTHDLKPENILFVNSDYELTYNLEKKRDERSV
KSTAVRVVDFGSATFDHEHHSTIVSTRHYRAPEVILELGWSQPCDVWSIGCIIFE
YYVGFTLFQTHDNREHLAMMERILGPVPSRMIRKTRKQKYFYRGRLDWENT
SAGRYVRENCKPLRRYLTSEAEDHHQLFDLIENMLEYEPAKRLTLGEALQHPF
FACLRTEPPNTKLWDSSRDISR

FIG. 3

1 cgcacggggc tcgccgccag aacgatgccc catccccgaa ggtaccattc ctgagagcga
61 ggtagccggg ggagttacca cgaacactat cagagccgaa agcataagcg aagaagaagt
121 cgctcctggt caagtagcag tgaccggaca aggcggcggc ggagggagga cagctaccac
181 gttcggtccc gaagcagcta tgatgaccat tcgtccgac ggagggtgta cgatcggcgg
241 tactgtggca gctacaggcg caatgactac agccgggaca gaggggaggg ttactacgac
301 acagactttc ggcagtccta tgaataccat cgagagaaca gcagttaccg aagccagcgc
361 agcagccgaa ggaaacacag aaggcggagg agacggagcc ggacattcag ccgctcatct
421 tcacacagca gccggagagc caagagtgtg gaggacgacg ctgagggcca cctcatctac
481 cacgtcgggg actggctaca agagcgatat gaaattgtaa gcacctagg agaagggact
541 tcggggccgag ttgtgcagtg tgtggaccat cgcaggggag gaacacgagt tgccctgaag
601 atcattaaga atgtggagaa gtacaaggaa gcagcccgac tagaaatcaa cgtgctggag
661 aaaatcaatg agaaagatcc tgacaacaag aacctctgtg tccagatgtt tgactggttt
721 gactaccatg gccacatgtg tatctccttt gagcttctgg gccttagcac cttegatttc
781 ctcaaagaca acaactacct gccctacccc atccaccaag tgcgccacat ggccttcag
841 ctctgccagg ccgtcaagtt cctccatgat aacaagttga cacatacga cctcaaacct
901 gaaaatattc tgtttgtgaa ttcagactac gaactcacct acaacctaga gaagaagcga
961 gatgagcgca gtgtaaagag cacagccgtg cgggtggtgg acttcggcag tgccaccttt
1021 gaccacgaac accatagcac cattgtctcc actcgccatt accgagcccc cgaggtcatc
1081 ctggagttgg gctggtcaca gccatgcat gtatggagca taggctgcat catctttgag
1141 tactacgttg gcttcaccct ctccagacc catgacaaca gagagcatct agccatgatg
1201 gaaaggatcc tgggtcctgt cccttctcgg atgatcagaa agacaagaaa acagaaatat
1261 ttttatcggg gtcgcctgga ttgggatgag aacacctcag ccggccgcta cgttcgtgag
1321 aactgcaaac ctctgcggcg gtatctgacc tcagaggcag aggaccacca ccagctcttc
1381 gatctgattg aaaatatgct agagtatgag cctgctaagc ggctgacctt aggtgaagcc
1441 cttcagcatc ctttcttcgc ctgccttcgg actgagccac ccaacaccaa gttgtgggac
1501 tccagtcggg atatcagtcg gtgacaatta ggctgggc

FIG. 4

MHHCKRYRSPEPDPLYTYRWKRRRSYSREHEGRLRYPSRREPPPPRRSRSRSHDR
IPYQRRYREHRSDTYRCEERSPSFGEDCYGSSRSRHRRRSRERAPYRTRKHAH
HCHKRRTRSCSSASSRSQSSKRSSRSVEDDKEGHLVCRIQDWLQERYEIVGNL
GEGTFGKVVECLDHARGKSQVALKIIRNVGKYREARLEINVLKKIKEKDKEN
KFLCVLMSDFNFHGHMCIAFELLGKNTFEFLKENNFQPYPLPHVRHMAYQ
LCHALRFLHENQLTHTDLKPENILFVNSEFETLYNEHKSCEEKSVKNTSIRVAD
FGSATFDHEHHTTIVATRHYRPPEVILELGWAQPCDVWSIGCILFEYYRGFTLF
QTHENREHLVMEKILGPIPSHMIHRTRKQKYFYKGGVWDENS SDGRYVKE
NCKPLKSYMLQDSLEHVQLFDLMRRMLEFDPAQRITLAEALLHPFFAGLTPEE
RSFHSSRNPSR

FIG. 5

1 ctgcaggctc acactagtgg atccaaagaa ttcggcacga gcgcagccgg agcctgggag
61 acgatgcatc actgtaagcg ataccgttcc ccagagccag acccatacct gacgtaccgc
121 tggaagagga ggcggcttta cagtcgggag catgaaggct gactacgata cccatcccga
181 agggagcctc cccacggag atcacggctc agaagccatg atcgtatacc ctaccagcgg
241 aggtaccggg aacaccgtga cagtgatacg tatcgggtgt aagagcggag cccatctttt
301 ggagaggact gctatgggtc ttcacgttct gcacatcgga gacggtcacg agagagggcg
361 ccgtaccgta cccgcaagca tgcccaccac tgtcaciaac gccgtaccag gtcttgtagc
421 agtgcttcct cgagaagcca acagagcagt aagcgcagca gccggagtgt ggaagatgac
481 aaggagggcc acctgggtgt ccggatcggc gattggctcc aagagcgata tgagatcgtg
541 gggaacctgg gtgaaggcac ctttggcaag gtgggtggagt gcttggacca tgccagaggg
601 aagtcacagg ttgccctgaa gatcatccgt aatgtgggca agtatcggga agctgtctgt
661 ctagaaatta atgttctcaa gaaaatcaag gagaaagaca aggaaaataa gttcctttgt
721 gtcctgatgt ctgactggtt caacttccat ggtcatatgt gcacgcctt tgagctcctg
781 ggcaagaaca cctttgagtt cctgaaggag aacaacttcc agccttacc cctaccacat
841 gtccggcaca tggcctacca gctctgtcat gcccttagat ttctacacga gaaccagctg
901 acccacacag acttgaagcc agagaacatc ttgtttgtga attctgagtt tgaaccctc
961 tacaatgagc acaagagctg cgaggagaag tcagtgaaga acaccagcat ccgagtggca
1021 gactttggca gtgccacgtt tgaccatgaa catcacacca ccattgtggc caccgctcac
1081 taccgcccac ctgaggtgat ccttgagctg ggctgggcac agccttgtga tgtctggagt
1141 atcggctgca ttctctttga gtactaccgt ggctttacac tcttcagac ccatgaaaat
1201 agagaacact tggttatgat ggagaagatt ctaggacca tcccatcaca catgatccac
1261 cgtaccagga agcagaaata tttctacaaa gggggcctgg tttgggatga gaacagctct
1321 gatgggcggg atgtgaagga gaactgcaa cctctgaaga gttacatgct gcaggactcc
1381 ctggagcatg tgcagctgtt tgacctgatg aggaggatgt tagagttcga ccctgctcag
1441 cgcatacat tggcagaagc cttgctgcac ccttctttg ctggcctgac ccctgaggag
1501 cggtccttcc acagcagccg taaccccagc agatgacagg tgcaggccag cacacgaaga
1561 gttggagagc tggactgggc tgctggcccc ttttctccag cctctccac tggcctcaga
1621 gccagagcca ccgatgaaca gtgcaatgtg aaggaaggca ggacctgaa ggggaagggg
1681 aatgtgggtc ccggctgcca gaaagcacag attggacca agcttttata tgttgtaaag
1741 ttataataaa gtgtttctta ctgtttgtaa aaaaaaaaaa aaaaaaa

FIG. 6

MRHSKRTHCPDWDSRESWGHEYSYSGSHKRKRSHSSTQENRHCKPHHQFKD
SDCHYLEARCLNERDYRDRRYIDEYRNDYCEGYVPRHYHRDVESTYRIHCSKS
SVRSRRSSPKRKRNRPCASHQSHSKSHRRKRSRSIEDDEEGLICQSGDVLRAR
YEIVDTLGEAFGKVVECIDHGMDGLHVAVKIVKNVGRYREAAARSEIQVLEH
LNSTDPNSVFRCVQMLEWFDHHGHVCIVFELLGLSTYDFIKENSFLPFQIDHIR
QMAYQICQSINFLHNNKLTHDLKPENILFVKSDYVVKYNSKMKRDERTLKN
TDIKVVDFGSATYDDEHHSTLVSTRHYRAPEVILALGWSQPCDVWSIGCILIEY
YLGFTVFQTHDSKEHLAMMERILGPIPAHMIQTRKRKYFHHNQLDWEHSS
AGRYVRRRCKPLKEFMLCHDEEHEKLFDLVRRMLEYDPARRITLDEALQHPFF
DLLKRK

FIG. 7

1 aaagagacgc agcggctgga gaggaacgac ggcggtttgg cgacatttct gcccaaaagg
61 ccgcttgctt ttgcggagat gcggcattcc aaacgaactc actgtcctga ttgggatagt
121 agagaaagct ggggccatga aagctacagt ggaagtcaca aacgcaagag aaggtctcac
181 agcagtactc aggagaacag gcactgtaaa ccacatcatc agtttaaaga ctcggattgt
241 cactatttag aagcaagatg cttgaatgag agagattatc gggaccggag atacattgat
301 gaatacagaa atgactactg cgaaggatat gttccaagac attaccatag agacgttgaa
361 agcacttacc ggatccattg cagtaaatac tcagtcagga gcaggagaag cagccctaag
421 agaaagcgta atagaccctg tgcaagtcac cagtcgcatt cgaagagcca ccgaaggaaa
481 agatccagga gtatagagga tgatgaggag ggtcacctga tctgtcaaag tggagacggt
541 ctaagagcaa gatatgaaat cgtggacact ttaggtgaag gagcctttgg caaagttgta
601 gagtgcattg atcacggcat ggatggctta catgtagcag tgaaaattgt aaaaaatgta
661 ggacgttacc gggaggcagc tcgttctgaa atccaagtat tggagcactt gaacagcact
721 gacccaaca gtgtcttccg atgcgtccag atgctagagt ggtttgatca tcatggcat
781 gtttgattg tgtttgagct gctgggactt agtacctatg attttattaa agaaaatagt
841 tttctgccat ttcaaattga tcacatcagg caaatggctt atcagatctg ccagtctata
901 aatTTTTTtac atcataataa attaacacac acggaccta aacctgaaaa tattttattt
961 gtgaagtctg actatgtagt caaatacaat tctaaaatga aacgagatga gcgcacattg
1021 aaaaacacag atatcaaagt tgttgatttt ggaagtgcaa catatgacga cgaacatcat
1081 agtactttgg tgtccacaag gcactacagg gctccagagg tcattttggc tctaggttgg
1141 tctcagcctt gtgatgtttg gagcataggg tgcattctta ttgagtacta ccttgggttc
1201 acagtctttc agaccacga tagtaaagag cacctggcaa tgatggagcg gatcttagga
1261 cccatcccag cacatatgat ccagaagaca aggaaacgca agtatttcca ccataaccag
1321 ctagattggg acgagcatag ttcagctggg agatatgtta ggagacgctg caagccgtta
1381 aaggaattta tgctgtgtca tgacgaagag catgagaagc tgtttgacct ggttcgaaga
1441 atgttgagat atgaccagc gagaggatc accttgatg aagcattgca gcacccttc
1501 tttgacttat taaaaggaa atgagtggga gtcagggcgg ccgcaccgc